

WHAT IS CLAIMED IS:

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1 1. A system for dynamically monitoring stability of
2 manufacturing equipment, comprising:

3 a process executor requesting a plurality of semi-
4 manufactured products processed by the manufacturing
5 equipment to be inspected at a first sampling rate and
6 receiving a plurality of inspection results;
7 a data processor analyzing the inspection results from
8 the process executor to determine a second sampling rate;
9 a device storing the second sampling rate; and
10 a controller receiving the second sampling rate from the
11 storage device and changing the first sampling rate of the
12 inspection requested by the process executor to the second
13 sampling rate.

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15 2. The system as claimed in claim 1 further comprising
16 an input device connected to the storage device for
17 inputting of a third sampling rate, wherein the controller
18 receives the third sampling rate from the storage device and
19 changes the first sampling rate of the inspection of the
20 processed semi-manufactured products guided by the process
21 executor to the third sampling rate.

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23 3. The system as claimed in claim 1, further comprising
24 a display connected to the storage device, displaying the
25 first and the second sampling rates.

1 4. The system as claimed in claim 1 wherein the
2 manufacturing equipment etches the semi-manufactured
3 products.

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1 5. The system as claimed in claim 1 wherein the
2 manufacturing equipment forms an oxide layer on the semi-
3 manufactured products.

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1 6. The system as claimed in claim 1 wherein the process
2 executor is a Manufacturing Executive System.

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04 7. The system as claimed in claim 1 wherein the
05 inspection of the semi-manufacturing products is non-
06 destructive.

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10 8. The system as claimed in claim 1 wherein one of the
11 semi-manufactured products is a semi-manufactured
12 semiconductor device.

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14 9. The system as claimed in claim 8 wherein the
15 semiconductor device is a wafer.

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17 10. The system as claimed in claim 1 wherein one of
18 the inspection results is a thickness of an oxide layer.

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20 11. The system as claimed in claim 1 wherein one of
21 the inspection results is an etching depth.

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23 12. The system as claimed in claim 1 wherein the data
24 processor is an SPC analyzing software application.

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1 13. The system as claimed in claim 1 wherein the
2 controller is a server.